CAPITAL FORMATION AND THE FEDERAL RESERVE

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It is a real pleasure to be here as a co-sponsor, along with Murray Weidenbaum and the Center for the Study of American Business, of this important meeting on capital formation. I must admit to a certain feeling of apprehension in attempting to deal with a subject of this complexity in the company of so many distinguished members of the academic community.

As president of a Federal Reserve Bank, I think it appropriate that I direct my remarks to the role of the Federal Reserve System in the process of capital accumulation. Although the Fed is usually viewed as playing a relatively minimal part in that process, some of our actions in monetary policymaking do have significant long-term effects on capital accumulation.

First, some background. As we know, additions to the stock of human and physical capital have in the past produced a steadily rising standard of living for our people. In fact, our ability to accumulate and expand capital has brought us a standard of living rarely matched by others. As we look ahead to the future, however, there are serious grounds for concern as to whether our economy can match, much less surpass, the record of past accomplishment.

What has been the accomplishment of the recent past? From the late-1940's to the early-1970's, our economy's stock of human capital grew

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rapidly as a result of advances in education and training, improvements in health care, enhancement of knowledge, and development of new technological know-how. During the same period, resources were allocated to the production of business plant and equipment (i.e., physical capital) to such an extent that growth of business physical capital far outstripped growth of the number of man-hours worked in the production of goods and services.

As a result of these two developments, overall productivity grew at an historically high rate. As a consequence, the average rate of increase in our standard of living more than doubled during the past three decades. Growth in output per capita rose from a 1.5 percent average annual rate of increase in the late-1940's to about a 3.5 percent rate in the early-1970's.

So much for the past. But what does the future hold in terms of the ability of our economy to sustain, or to exceed, the average rate of increase in output per capita of the early-1970's? A related question is whether past rates of growth in output can be sustained while at the same time achieving often asserted social objectives.

At this moment the answer to these two questions must be "NO" unless the influence of prospective demographic trends on output per capita are offset by other developments. Let me elaborate.

According to Census Bureau projections, growth in the labor force aged population, that is, the potential number of persons available for filling jobs, is expected to slow markedly over the balance of this century. At the same time, growth of the total population is projected to increase somewhat. An implication of these two projections is that growth in output per capita will recede from its recent rate of increase unless there are compensating offsets, such as a marked rise in the growth of productivity. In turn, the extent of productivity growth will depend crucially on the potential rate of capital formation.

As economists, you are familiar with the economic considerations which influence the rate of capital formation. There are many and they are varied. As president of a Federal Reserve Bank, I shall direct my remarks to the contribution that the Federal Reserve System can make toward facilitating growth in the capital stock.

It might be appropriate to start by pointing out what the Federal Reserve cannot do to affect capital growth. It can neither directly increase the amount of resources available for production nor directly influence the allocation of these resources to capital formation. The Federal Reserve can only control the stock of money and, thereby exert an indirect influence on capital formation. How can the Fed do this?

One way is to avoid pronounced short-run changes in the growth rate of money. Many studies indicate that stop-and-go monetary actions in the post-World War II era produced alternating periods of short-term acceleration and deceleration of monetary growth, thereby, contributing in considerable measure to fluctuations in income, output, and employment. Such instability has the effect of generating uncertainty regarding returns to be expected from additions to capital and, thus, tends to discourage capital formation.

The other way the Federal Reserve can facilitate capital formation is by controlling the average growth rate of money over longer periods of time so as to avoid inflation or deflation. A generally accepted proposition today is that the trend growth rate of money relative to the trend growth rate of output is the fundamental determinant of inflation. As rising price levels, given our institutional rigidities, are an important deterrent to capital formation and to the efficiency of the allocation of capital, it is appropriate to consider just how they impact capital markets.

First, inflation tends to shorten the maturity structure of debt. Lenders, to protect against the erosion of their investments caused by possible changes in the rate of inflation, opt for loans with shorter maturities. In such situations, firms engaging in longer-run capital formation, such as public utilities, face the necessity of constantly rolling over short-term debt. The resulting uncertainty with respect to borrowing costs again tends to reduce the incentive to invest.

Under the progressive income tax rate structure, conditions of inflation cause personal income tax liabilities to rise faster than income. As a result, the expected real return to individuals from adding to their human capital is reduced.

Given our present corporate income tax structure, inflation also has an adverse impact on business capital formation. Plant replacement costs rise, but depreciation deductions from corporate income for tax purposes are based on historical costs. As a result, reported profits are overstated, firms pay higher taxes than otherwise, and the incentive to invest in plant and equipment declines.

Firms in regulated industries find that during periods of inflation their regulated prices tend to rise more slowly than their marketdetermined costs. As a result, they often are unable to compete for investment funds with firms in unregulated industries. Under such circumstances, the allocation of resources to capital formation is less efficient than if all firms were able to compete on an equal basis in the marketplace.

In addition, inflation often leads to calls for the imposition of formal or informal controls over *all* prices and wages. The possibility of wage and price controls leads to uncertainty regarding future expected returns from capital investment, and consequently, reduces the incentive to accumulate capital.

A similar situation prevails when ceilings are imposed on interest rates that thrift institutions may pay on time and savings deposits. It is well documented that rising market interest rates are the handmaidens of inflation. It is also well documented that when market rates rise above legally mandated ceiling rates, investable funds bypass thrift institutions for unregulated markets. The frequent result is a less efficient allocation of current resources available for capital formation.

All of those factors, I believe, underscore the role of Federal Reserve monetary policy in facilitating capital formation. Our mission is to promote a more stable economy and to prevent a persistent rise in the average level of prices. This role calls for relatively stable short-run growth of money, and long-run growth roughly in line with the trend growth of output. It is clear that monetary authorities should be primarily concerned with providing a stable monetary environment in the long-run, rather than engaging in attempts to solve sectoral problems. This is true particularly where capital formation is concerned.

Essential to the capacity of the Federal Reserve to fulfill its proper monetary policy role is its ability to function independently of influences which call for the use of monetary policy to solve short-run problems. The framers of the Federal Reserve Act wisely provided an independent status for the Fed whereby it would be able to function in the national interest independent of political or social pressures. Any lessening of this independence might indeed produce disastrous long-term results. In this respect, independence must be construed in both a legal and de facto sense. While it cannot be denied that even a legally independent system can make errors, problems are more certain to occur when a monetary authority tries to respond to public pressures to counteract short-term economic problems. We must resist both legal and de facto threats to Federal Reserve independence.

In summary, if we believe that one of society's goals is to foster continued growth in our standard of living at a rate commensurate with past experience, I suggest that continued capital formation is a necessary condition for the achievement of this goal. For this objective to be achieved, it is necessary that the Federal Reserve System remain legally and practically independent. While such independence does not assure that adequate capital formation will take place, it will at least increase the probability that some of the obstacles facing us will be minimized.